

Another objectionable feature of this clamping device is that chips work into the threads and prevent turning the bushing easily which also shortens the life of the thread. This difficulty can be overcome, however, by not tapping the hole all of the way through, as indicated at *A*; by counterboring the hole at the top marked *B* and then grinding the pilot (*C*) and shoulder *D* on the bushing to a snug running fit. The bushing is then held true and chips are excluded from the thread. The average tool designer, nevertheless, avoids screw bushings whenever pos-

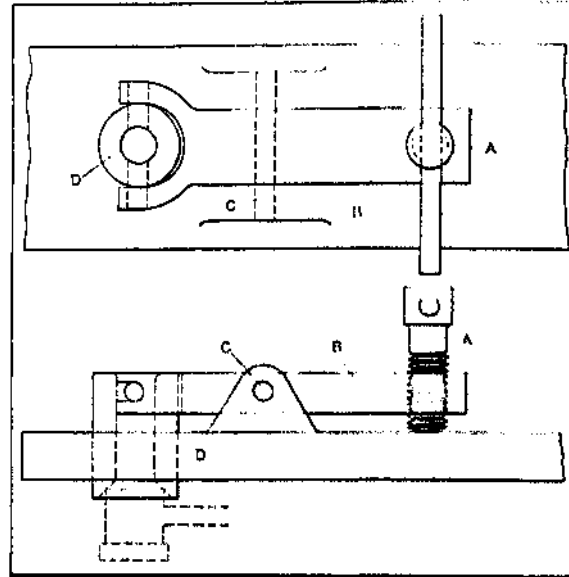


Fig. 58. An
Improvement on tin-
3cr<w Bushing

sible, but such bushings are frequently selected after careful consideration because of their neat appearance and effective operation.

Fig. 58 shows a clamping device which, although a

little more expensive than a screw bushing, would probably pay for itself in saving the breaking of drills, and the bushing on this jig can be made shorter and with a one-size hole. The screw *A* swings the lever *B* about pin *C* and pushes down the bushing *I* which is a slip fit in the body of the jig,

A rather unusual method of clamping is illustrated in Fig. 57,